

Active Matrix Addressed Polymer LED DisplayABSTRACT OF THE DISCLOSURE

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A display having a plurality of light emitting pixels. Each pixels includes an isolation transistor, a driving circuit, and an organic light emitting diode (OLED). The driving circuit storing a value that determines the magnitude of the light emitted by that pixels, the driving circuit placing the OLED in a conducting path between the first and second power terminals.

10 The driving circuit is programmed through the isolation transistor. In one embodiment of the present invention, the driving circuit includes a storage capacitor and a driving transistor. The OLEDs are part of an array of OLEDs. The array of OLEDs is constructed on a flexible sheet having first and second surfaces, the flexible sheet being transparent to light of a first wavelength. A transparent first electrode layer is in contact with the first surface. A light
15 emitting layer including an organic polymer is in contact with the first electrode layer. A plurality of second electrodes, one such second electrode corresponding to each of the OLEDs, is in contact with the light emitting layer. Each second electrode has an isolated conducting area. The driving transistor are part of a transistor array having a plurality of connection points disposed on a surface, each connection point corresponding to one of the
20 second electrodes in the array of OLEDs. The connection points are arranged such that each second electrode overlies the corresponding connection point when the array of OLEDs is properly aligned with the transistor array. The connection points are bonded to the corresponding second electrodes by a bonding layer.

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